

REMARKS

Claims 1, 3-7, 9-13, 15, 17 and 18 are pending in this application. By this Amendment, the specification and claims 1, 3-5, 10 and 15 are amended. Claims 2, 8, 14, 16 and 19 is canceled without prejudice to or disclaimer of the subject matter recited therein. Independent claim 1 is amended to incorporate the subject matter of canceled claim 2 and independent claim 15 is amended to incorporate the subject matter of canceled claim 16. Thus, no new matter is added.

I. Information Disclosure Statement

An Information Disclosure Statement and PTO-Form 1449 are submitted concurrently herewith to list U.S. Patent No. 5,131,957 as being material to examination of this application. U.S. Patent No. 5,131,957 is cited in the specification of this application. Accordingly, Applicants respectfully request acknowledgement of receipt and consideration of the cited reference.

II. Specification

The specification is objected to due to an informality. As the specification is amended to address the informality cited in the outstanding Office Action, withdrawal of the objection is respectfully requested.

III. Claim Rejections Under 35 U.S.C. §112

Claims 8, 14 and 19 are rejected under 35 U.S.C. §112, second paragraph. As each of claims 8, 14 and 19 is canceled, withdrawal of the rejection is respectfully requested.

IV. Allowable Subject Matter

The indication of allowable subject matter in claims 3-7, 10-13 and 16-18 is appreciated, they being allowable if rewritten in independent form to include all of the features of their base claim and any intervening claims. The pending claims are in condition for allowance for the reasons discussed below.

V. Claim Rejections Under 35 U.S.C. §102

Claims 1, 2, 9 and 15 are rejected under 35 U.S.C. §102(b) as anticipated by U.S. Patent No. 5,935,464 to Dulaney et al. (Dulaney). The rejection is respectfully traversed.

Dulaney fails to disclose each and every feature recited in the rejected claims as originally submitted, and as currently amended. For example, Dulaney fails to disclose a laser shock peening process in which a laser beam is fired at a surface of a workpiece to generate a plurality of laser shock peened spots on the workpiece, at least one of the laser shock peened spots having a shape different from that of others of the laser shock peened spots, and in which a selectively operable shape defining device is disposed in the path of the laser beam in order to achieve the different shape, as recited in amended claim 1 or the similar features recited in claims 9 and 15.

Dulaney relates to a laser peening apparatus, a diffractive optical element changes the laser beam to a cross-sectional shape such as rectangular, hexagonal or to split the laser beam into a multiple beam (Abstract of Dulaney). However, Dulaney fails to disclose generating a plurality of laser shock peen spots on a workpiece where at least one of the spots has a shape different from that of the other spots. Rather, Dulaney merely discloses creating a plurality of similarly shaped spots. For example, Dulaney discloses generating a "custom, specific shape for laser peening." (Col. 2, lines 59-63).

To further distinguish the subject matter recited in rejected claims from the applied reference, the claims are amended to further recite that the laser shock peening process, wherein a selectively operable shape defining device is disposed in the path of the laser beam in order to achieve the different shapes. This feature is not disclosed or suggested in the applied reference. Although it is alleged in the Office Action that the diffractive optic element 30 is a shape defining device, the diffractive optic element as shown in Fig. 1 is merely a hexagonal lens that is disposed in the path of the laser beam. Further, Dulaney merely discloses that different optic

elements are placed within the laser beam path to produce a spot of a corresponding shape.

Thus, as Dulaney does not contemplate producing laser shock peen spots having different shapes, or disclose a selectively operable shape defining device disposed in the path in order to achieve such different shapes, Dulaney does not anticipate the rejected claims.

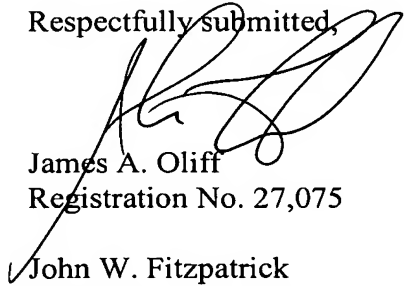
Further, as there is no disclosure or suggestion in Dulaney that the diffractive optic elements may be selectively adjusted, removed or inserted into the beam path during the laser shock peening process, all of the resulting spots generated through such an element will be of the same shape. Accordingly, withdrawal of the rejection of claims 1, 2, 9 and 15 is respectfully requested.

VI. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1, 3-7, 9-13, 15, 17 and 18 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,


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